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Portfolio Project

MATH201 College Mathematics: Quantitative Reasoning

Ms. Tate

01/20/2024

Introduction

A budget can help you manage your money and allow you to build financial stability and security. When you create a plan to track your income and expenses, you can more easily pay your bills on time, save for major purchases, and build an emergency fund for unexpected expenses. It's also a great way to strengthen your current and long-term financial foundation.

Understanding the debt-to-income ratio is crucial when it comes to subject-to properties, and it plays a significant role in determining the financial health of both the buyer and the property itself. The debt-to-income ratio is a simple calculation that compares an individual's monthly debt obligations to their monthly income. In essence, this ratio provides insights into whether a buyer can comfortably manage their debt payments based on their income.

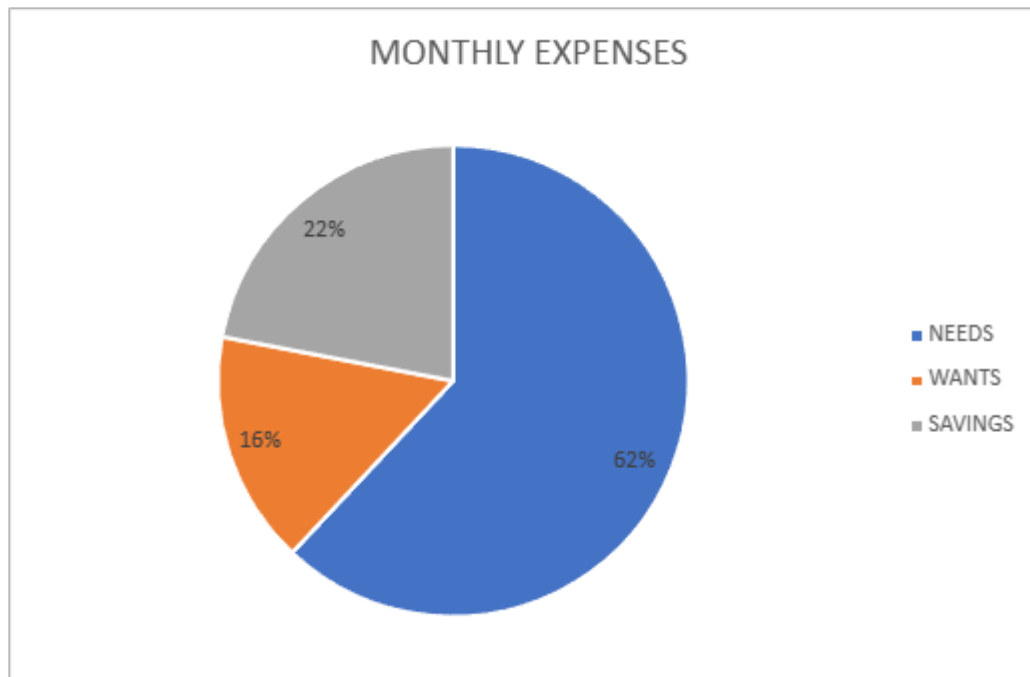
Part 1 - Budget Basics

a) Monthly Net pay

Profession:	Medical Coder
Annual Salary:	\$ 58,250
Gross Monthly Pay (rounded to the cent): Annual salary divided by 12 Show your work!	\$4854.16 $58250/12=4854.16$
Monthly Net (take-home) Pay (rounded to the cent): Gross monthly pay minus 20% for income taxes, FICA taxes, and health insurance deductions Show your work!	\$3883.33 $4854.16 \cdot .20 = 970.83$ $4854.16 - 970.83 = 3883.33$

Table 2: Monthly Expenses			
Budgeted Category	Category Details	Total Budgeted Amount	Percent of Total Take Home Pay (Rounded to Nearest Whole Percent) – Show work
Housing (Need)	Rent or mortgage payment = property taxes = repairs = etc.	\$808.17	21% $808.17 - 3883.33 = 0.208 * 100 = 20.81$ Work:
Food (Need)	Groceries = going out to eat = small snacks (lattes, vending machine, etc.) = Formula for Child(ren) =	\$250.00	6% $250 / 3883.33 = .064 * 100 = 6.4$
Insurance (Need)	Life = Medical = Doctor Visits for Child(ren) = Home = Auto =	\$ 150	4% $150 / 3883.33 = .0386 * 100 = 3.86$ Work:
Transportation (Need)	Car payment = Fuel = Parking = Oil change = Bus Fares =	\$700.00	18% $700.00 / 3883.33 = .180 * 100 = 18$ Work:
Utilities (Need)	Water = Electricity = Internet = Gas = Phone =	\$500.00	13% $500 / 3883.33 = .128 * 100 = 12.8$ Work:
Personal care (Want)	Haircuts = Clothing = Make-up = Nails = Diapers / Clothing for Child(ren) =	\$100	3% $100 / 3883.33 = .025 * 100 = 2.5$ Work:
Entertainment (Want)	Anything fun (leisure activities) = Netflix = Hulu = HBO Max = Disney Plus = Gym Membership = Subscription Boxes = Vacation = Birthday/Holiday gifts =	\$300	8% $300 / 3883.33 = .0772 * 100 = 7.72$ Work:
Miscellaneous (Want)	Donations = Day Care / School Expenses = Pet Expenses = Credit Card Payment = Student Loan Payment =	\$200	5% Work:
Savings (Savings)	Retirement / Savings = Emergency Fund (leftover income) =	\$200 \$675.16	5% $3883.33 - 3208.17 = 675.16 * 100 = 17\%$

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			Work:
TOTAL		\$3883.33	100%



b) Compare your Monthly Expense Ratios to the 50-30-20 Rule

- I. . My Needs 62% are high compared to the 50-30-20 rule. My Wants at 16% are low compared to the 30% they should be. My Savings at 22% are a little higher than the recommended 20%.
 - II. NO, I don't plan to make any changes. The 50-30-20 rule is only advisory and for my lifestyle, it works. I don't have much time for Entertainment, or going out, getting my nails done, etc. I do however go on Vacation once a year so my Savings being high will compensate for the money, I use on my vacation yearly. That technically is a want, I just do it once a year. My Needs are my bills and
- Part 2 - Debt and Expenses

Debt and Expenses

a) Calculate your Debt-to-Income Ratio

- I. Debt: 808.17 Mortgage
505.00 Car payment
75.00 Credit card payment

Total $1388.17 / 4854.16 = 29\%$

My debt to income ratio is 29% which is good lenders prefer your debt to income ratio to be under 38% to mine is good right now.

b) Calculate your Life Insurance Policy

Life insurance is used to replace income when you die. A younger person with dependents likely needs more life insurance than an older person with few to zero dependents. Experts recommend, **on average**, your life insurance should be 10 TIMES

your gross annual income. For more information about life insurance and how much your policy should be worth, use the following link to assist you: [10X Your Annual Salary – Life Insurance Ratio](#)

- I. $58250 * 10 = 582,500$.
- II. Dependents are people who depend on you to give them their necessities, food, shelter, clothes etc. Someone younger has small children depending on them so they would need more life insurance to make sure they were taken care of if something happened. Someone older their kids are grown with jobs and families of their own. An older person probably doesn't have anyone depending on them.

c) Calculate your Retirement Savings

Saving for retirement is something everyone should consider as soon as they can start saving. The “All About the Benjamin’s Report” should be evidence that the earlier you can start saving, the more you should be able to save.

- I. $200 * 12 * 20 = \$48,000 @ 65$ $60,000 @ \text{age } 70$
- II. No that's not a lot of money considering the price of everything nowadays and it's probably going to cost more in 20 to 25 years. I think I will investigate the pros and cons of investing my money in something.

d) Calculate your Emergency Fund

Do you currently have an emergency fund? Financial experts recommend having at least 6 months of expenses saved up for emergencies.

2408.17 is my monthly necessities

- I. 675.16 a month is what I have in the emergency fund so it would take me 3.5 months

II. Part 3 – Mortgage, Monthly Payments, and Analysis

Mortgage, Monthly Payments, and Analysis

a) Determine Documents for Mortgage Pre-Approval

A list of assets, paycheck stubs, credit reports, bank statements, previous tax documents, your ID, proof of employment are the documents I had to show when I bought my house.

b) Research Houses of Interest

Address, City, State	List Price	Number of Bedrooms	Number of Bathrooms	Square Footage
1118 Haltown SA, TX 78213	337,000	3	2	1635
1807 Candlelight SATX 78213	239,999	4	2	1271
930 Patricia SA TX 78213	375,000	4	2	2696
134 Lemur SA TX	250,000	3	2	1880
1727 Lamppost SA TX 78213	247,000	4	2	1407

c) Calculate Monthly Payment

Calculate the monthly payment for each house based on a 30-year loan with a 5% interest rate and a down payment of \$5,000. Use the following website to help you calculate the

monthly payments. <https://www.calculatorsoup.com/calculators/financial/loan-calculator.php>

House Address	Monthly Payment
1118 Haltown	1782.50
1807 Candlelight	1256.15
930 Patricia	1986.24
134 Lemur	1315.12
1727 Lamppost	1304.48

d) Calculate Housing Ratio

Financial experts recommend your monthly housing costs should not exceed 20% of your take-home (net) pay.

I.

House Address	Housing Ratio (Show all work)
1118 Haltown	45.91%
1807 Candlelight	32.39%
930 Patricia	49.54%
134 Lemur	33.87%
1727 Lamppost	33.55%

II. None of them are within my budget. I mean I could make it work I am doing it now but none of the listed houses I picked are 20% or less than my net take home pay. Right now my house payment is 30.47 % from my net pay

e) Calculate Total Amount Paid and Interest

Choose one house that is within your budget that you would like to purchase. So I will go with the lowest monthly rent price

f) $1256.15 * 360 = 233,997.65 + 5000 = 238,997.65$

g) Calculate Closing Costs

$$239.999 * 0.05 = 11999.95$$

h) Financial Analysis

According to this, I am not ready to buy a house yet although I just did. I guess I will be ready to buy one in two years. The hardest part is coming up with closing costs and down payment all at once. I got an inheritance which was how I was able to do it.